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Reply to office action mailed 02/04/2004

**REMARKS**

Claims 1 - 9 are currently pending in the application. By this amendment, claims 8 is amended for the Examiner's consideration. The foregoing separate sheets marked as "Listing of Claims" shows all the claims in the application, with an indication of the current status of each.

Claim 8 has been amended to incorporate the preamble definition of the data element as a visual representation of a programming object into the body of the claim. This language has been used throughout the specification such as on page 3, lines 22 - 23 which recites,

"Each programming object used in the visual programming language comprises a set of data elements."

Therefore, this amendment has sufficient antecedent basis and does not constitute new matter

Claims 1 - 9 have been rejected under 35 U.S.C. 102 (e) as being anticipated by Walton et al. (US 5,883,639). This rejection is traversed.

The primary function of Walton et al. is as a simulator to assist a developer in creating user interface controls. These controls are physical devices that would be manipulated or viewed by a human operator. Some examples of these physical devices are push buttons, dials, switches, gauges and meters. One application might be in the auto industry when a designer is interested in redesigning the dashboard of a car model. Using Walton et al., it appears that the designer could 'draw' the dashboard with its related gauges, meters and buttons. Once the various behaviors of the simulated physical objects or devices have been defined the designer can 'look' at the presentation of the simulated devices during different states. That is, the simulated oil gauge would change color or light up when it received a command to change its state. The designer could make decisions about the look, color or brightness of the gauge relative to the other simulated objects on the proposed

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dashboard.

This is completely different from the intent and performance of the subject invention. The subject invention relates to a method and apparatus for utilizing graphical elements for *programming objects* to reflect programming states for a software developer. The objects that are addressed by the subject invention are programming objects, not simulated physical devices. The software developer would apply the subject invention during 'coding' to allow state changes to be shown visually as the programming progressed. This is more of a programming tool to assist in troubleshooting the code as the code is built. A software programmer may create a code stream using a visual programming language. If the programmer's system is enabled with the subject invention, the code would be present to the programmer as visual programming objects and the look of the programming objects would indicate the current state of the code under development. Such as, if a programmer had assigned a code block, for example, to calculate an average from several other inputs but the programmer did not complete the code block to calculate number of inputs, the average calculation would be indeterminate because of a zero denominator. The subject invention could have the programming object change color or some other state indicator to alert the developer that it was in an error state during the actual programming phase. In Walton et al., the objects change 'state' during the simulated operation or run of the program in response to inputs provided by the developer not during the actual development of the application as for the subject invention. Furthermore, Walton et al. is not focused on application development as is the subject invention.

As for claim 1, the Examiner cites column 3, lines 55 - 67 through column 4, lines 1 - 24 of Walton et al. to suggest that the graphical object of the subject invention is the same as the graphical object of Walton et al. This is incorrect. The graphical object of Walton et al. are visual representations of user interface components being created and not building blocks of application code used to create

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software based programs. The state changes of the user components for Walton et al. are simply animation behavior of the user interface components and not programming code of a software development as for the subject invention. As recited in Walton et al.,

"...the interface developers creates the desired user interface by first drawing the user interface with a graphics editor. The user then defines output behavior of the user interface components..."

This is different from the subject invention in which in claim 1 recites,

"...wherein the data element represents a **programming object** as graphical elements and **programming properties** of **programming objects** are reflected through graphical element properties..."

Claims 2 - 7 all depend from claim 1 and are therefore subject to the limitations of claim 1. That is, the object being manipulated by the subject invention is a programming object. This is different from the Walton et al. object which is simply an animated drawing of a user interface component. The animation of Walton et al. allows the user interface components to move, change color or blink, etc. in response to controls entered by the interface designer. While the state changes of the subject invention reflect actual numerical, functional, mathematical, logical, etc. states of the programming objects.

With respect to claim 8, the Examiner correctly points out that claim 8 is the apparatus claim relative to the method claimed in claim 1. As such, the apparatus provides memory for storing the programming objects as well as a display unit for displaying the programming objects. Walton et al. does not use programming objects and does not therefore, store or display programming objects.

With respect to claim 9, the Examiner correctly points out that claim 9 is the computer program claim relative to the method claimed in claim 1. As such, the computer program of the subject invention addresses programming objects which, as discussed above are significantly different from the graphical objects of Walton et al.

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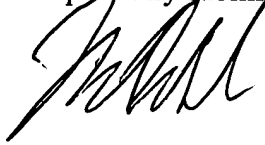
Therefore, any suggested similarities between Walton et al. and the subject invention are incorrect as a programming object in the subject invention is not the same as a graphical object as used in Walton et al.

In view of the foregoing, it is requested that the application be reconsidered, that claims 1 - 9 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at 703-787-9400 (fax: 703-787-7557; email: mike@wcc-ip.com) to discuss any other changes deemed necessary in a telephonic or personal interview.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Deposit Account 50-0510 (IBM-Yorktown).

Respectfully submitted,



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